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Programmability in AIPS++

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AIPS++ is an Astronomical Information Processing System being designed and implemented by an international consortium of NRAO and six other radio astronomy institutions in Australia, India, the Netherlands, the United Kingdom, Canada, and the USA. AIPS++ is intended to replace the functionality of AIPS, be more easily programmable, and will be implemented in C++ using object-oriented techniques.

Programmability in AIPS++ is planned at three levels. The first level will be that of a command-line interpreter with characteristics similar to IDL and PV-Wave, but with an extensive set of operations appropriate to telescope data handling, image formation, and image processing. The third level will be in C++ with extensive use of class libraries for both basic operations and advanced applications. The third level will allow input and output of data between external FORTRAN programs and AIPS++ telescope and image databases.

In addition to summarizing the above programmability characteristics, this talk will give an overview of the classes currently being designed for telescope data calibration and editing, image formation, and the "toolkit" of mathematical "objects" that will perform most of the processing in AIPS++.